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ABSTRACT

Research has shown that children use physical features to distinguish among people, and that race can be distinguished by certain features such as skin color and the shape of eyes, nose, and lips. However, L. Hirschfeld (1993, 1994) has argued that children must have the concept of race before they form the race social category and that other categories are more important to children than race. The purpose of this study was to determine whether 6-year-olds categorize people by race, whether they have a concept of race, and whether race is a salient category. Six- and seven-year-olds sorted pictures of people who varied in gender, age, and race. The majority of both age groups sorted the pictures into racial categories first, demonstrating that these children categorize by race and that race was salient. Further, the majority of the 7-year-olds indicated that they had formed a concept of race. Contrary to predictions, children categorized gender least often. This finding may be because children placed more importance on race than on gender or age because race is a new social category for them. Six-year-olds appear to be in a transitional phase in the formation of the racial category. (Author/KB)

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Children's Social Categories and the Salience of Race

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Abstract

Research has shown that children use physical features to distinguish among people, and race can be distinguished by certain features such as skin color and the shape of eyes, nose, and lips. However, Hirschfeld has argued that children must have the concept of race before they form the race social category and that other categories are more important to children than race. The purpose of this study was to determine whether six-year-olds categorize people by race, whether they have a concept of race, and whether race is a salient category. Six- and seven-year-olds sorted pictures of people who varied in gender, age, race. The majority of both age groups sorted the pictures into racial categories first, demonstrating that these children categorize by race and that race was salient. Further, the majority of the seven-year-olds indicated that they had formed a concept of race. Contrary to predictions, children categorized gender least often. It might be that children placed more importance on race than on gender or age because race is a new social category for them. Six-year-olds appear to be in a transitional phase in the formation the racial category.

CHILDREN'S SOCIAL CATEGORIES AND THE SALIENCE OF RACE

Even very young children learn to make distinctions among the people they see. They may see people either as young or old, or as male or female. These distinctions create the social categories that children use to define people. Children develop their social categories over time. For example, at age one, children may be able to recognize male and female faces as belonging to two separate categories. By the age of three, children can place themselves in a gender category. When they reach the age of seven, children fully grasp the concept of gender stability. For example, a boy will always be a boy and will grow up to be a man (Hetherington & Parke, 1999). Although gender is one of the first categorizations children make, they also begin to consider other differences among people and they create categories based on age, race, and occupation (Hirschfeld, 1994).

Children are rather late in forming social categories based on race. Around the ages of five and six, they start to form these categories (Hirschfeld, 1993, 1994a, 1994b; Ovadia, 1993, as cited in Bar-Tal, 1996). Children use physical features to distinguish among people, and race can be distinguished by certain features such as skin color and the shape of eyes, nose, and lips (Clark & Clark, 1940, as cited in Hirschfeld, 1994). However, Hirschfeld has argued that although children may use perceptual cues as information, these cues are not fundamental to establishing racial categories.

Hirschfeld (1993, 1994a, 1994b) conducted a series of studies to investigate the importance of physical characteristics in children's social categories. In one study, Hirschfeld (1994a) investigated the question of the importance of race over other social categories, such as occupation, behavior, nonracial physical features, and gender when verbal labels were used to describe people. French preschoolers, ages three and four, served as subjects and were told

about a child trying to buy a birthday present for his/her mother. In the story, the protagonist encounters four adults, each of whom was described in terms of race, gender, occupation, and a nonracial physical feature. After the story was related, each child was asked to recall the story. The results indicated that the category recalled most frequently was occupation, followed by race, gender, with nonracial physical features recalled least often. These findings indicated that all social categories were not equally salient.

Perhaps of greater importance is the second study Hirschfeld (1994a) conducted. The children again heard a story about a child trying to buy a birthday present. The difference between this study and the one described previously was that the children were shown pictures along with the story. The idea was that priming by the use of pictures should increase the knowledge of physical features in association with the category label. The number of times the children recalled the race, gender, nonracial physical feature, or occupation of the adults in the story was computed. The results indicated that when pictures were shown to illustrate the story, recall was greatest for gender, followed by occupation, race, and finally by nonracial physical characteristics. The children were less likely to describe a social event in terms of a character's race following a visual narrative than following a verbal one. Further, when the children were questioned directly about the ethnicity of the characters when pictures were shown, recall for race was poor. Hirschfeld argued that, contrary to prior beliefs, perception of physical characteristics was not most important in the development of racial categories.

In the Hirschfeld studies, verbal descriptions encouraged more recall of race than visual cues. These studies illustrated that racial features were not the most important characteristics for children indicating that children do not visually categorize people into race. Hirschfeld argued that instead, children's racial categories are based on a developed concept of race that does not

rely on perceived features but instead relies on biological relationships (Hirschfeld, 1993, 1994a, 1994b). In one study, he showed three, four, and seven-year-olds a picture and then asked them to choose from two pictures as to which matched with the previous one. He had varied race, occupation, and body build. For example, if a picture of a thin, black, male adult policeman was shown, then the alternative allowed the child to choose from a picture which varied either by race or body build, such as a thin, white, male child policeman, or a plump, black, male child policeman. Hirschfeld was interested in which characteristics children preserved in inheritance and growth. To determine whether inheritance is important, he asked the children to choose which child was the child of the target adult. To determine the importance of growth, he asked which picture was a picture of the adult as a child. It was found that for both questions, children of all ages, but especially the older children, chose race significantly more often than either body build and occupation. Hirschfeld concluded that by age four, children understand that race contributes to identity and therefore is part of the people's "intrinsic nature."

Semaj (1981) conducted a study to investigate the salience of racial cues in the classification of people across a wide range of situations. He first demonstrated that the children were able to sort inanimate objects and to form hierarchical classifications. The major purpose of the Semaj study was to determine if the children could also make racial classifications. African-American children enrolled in kindergarten through sixth grade served as participants. In one part of the study, the task required the children to compare eight pictures to a standard that varied according to gender and race. Semaj (1981) demonstrated that as children become older, they recognized and ranked social categories differently in all other tasks from younger children. Between the ages of four and eleven, most children, in general, are centered on gender. Therefore, there is a low salience of race. The results suggested that for children about nine

years of age and older, race was the salient factor but only when he emphasized differences among people. After age eleven, race may become the main criterion by which people are classified.

It has been demonstrated that there are age differences in the way racial categories function in children. Seven year old children are more likely to be conscious of racial differences among people than are five year olds (Hirschfeld, 1993, 1994a, 1994b; Ovadia, 1993, as cited in Bar-Tal, 1996). For example, Ovadia (1993, as cited in Bar-Tal, 1996) investigated whether or not children would interact with various groups of people. The results showed that majority children younger than five years were more willing to have social contacts with minorities than majority children who were over five. Of those majority children who did not recognize the minorities instantaneously, the older and younger children had similar results when evaluating the person. However, after it was revealed that the person was a member of the minority, the older children then evaluated the person more negatively whereas the children under age five did not change their evaluations. These findings illustrate that children's racial concepts become more elaborated as they grow older. Under age five, children may not have fully developed racial concepts and therefore they do not use race when judging people. It might be that because younger children do not have elaborated racial concepts, when they are asked to categorize people who differ in race, age, or gender, they may not categorize people according to race first, but only after grouping them according to other variables.

There appears to be a transitional stage in children's racial concepts between ages five to seven. At around the age of six, as children have more fully developed concepts of race, they begin to place more importance on race when categorizing people (Ovadia, 1993, as cited in Bar-Tal, 1996). Therefore, while children categorize race at an earlier age, at seven or eight years of

age, their race concept functions in every day life (Hirschfeld, 1993. 1994a, 1994b; Ovadia, 1993, as cited in Bar-Tal, 1996). Between the ages of five and six, there is a transition stage, and race moves from a low importance to high importance. The present study investigated children's understanding of race during the developmental transition. The study also included two social categories that are well-established by age six, gender and age.

To judge whether or not the children had formulated concepts for their social categories, children were asked one question about each social category. These questions were based on content information that is typical of the social categories race, gender, and age. That is, the questions represented common stereotypes of the members of the category. The children were expected to sort the pictures according to the social category represented by the question. The question regarding gender was "Who can wear pink?" and for age it was "Who can drive?" Hirschfeld (1993, 1994a, 1994b, 1996) had stated that race is related to family membership, therefore, the race concept question centered on family membership. The children were asked, "Can you put the families together?" It was presumed that the children have concepts for gender and age, but their concepts of race are not elaborated.

Once children develop several categories, the issue of hierarchy among the categories becomes important. It might be that to younger children, one social category is more salient than another. For example, children might categorize people according to gender, age, occupation, and race, but they may categorize gender first, and then age, and so on. The question under investigation in this study was whether six-year-olds systematically find one social category more salient than others.

In the present study, children sorted pictures of people who vary in age, gender, and article of clothing, in addition to race. The sorting tasks had no story line or guidelines, which

allowed the children to make choices on how they want to sort the pictures. Without a social context, it was possible to observe what social categories were most salient independent of context. The children were asked to complete the sorting task three times to investigate if there was a hierarchy of the categorizations. For instance, will the children first categorize people into gender and then race, or will they first have gender, age groups and then race, or will race be used to categorize people first? Hirschfeld's (1993, 1994a, 1994b) studies indicated that race would be the most salient category among older children after their concepts emerge at seven years of age. In this study, it was hypothesized that six-year-olds would categorize the pictures by gender first because their social world is dominated by gender (Semaj, 1981).

Methods

Participants

Children who participated in the study were from white, suburban, middle class communities. They were from a YMCA's after-school program, a private, religious school, and from the local area who were solicited through faculty and staff by the campus e-mail system. The ages of the children ranged from 66 to 93 months (5 ½ to 7 ¾ years) with a mean of 78.26 months. A total of 40 children were tested, but the responses of one boy were discarded because he did not sort any of the pictures, and instead, placed them all in a single pile for all sorts. Of the 39 participants, 15 were male. The children were separated into six-year-olds (66 to 79 months, $X = 72.5$ months) and seven-year-olds (80 to 93 months, $X = 84.3$ months) using a median split. The racial makeup of the children was predominately Caucasian.

Apparatus

Pictures were selected from advertisements in catalogues. The pictures varied on four dimensions, race, age, gender, and articles of clothing. Ten college students were asked to rate the pictures as to the attractiveness of the person and as to whether the person was "a good representation of its racial group." Ratings were made on a scale from one to seven with seven being the most attractive or best representation. Twelve pictures with a rating of 5.8 or above on both scales were chosen for the study.

Three racial groups were used: Caucasian, African-American, and East Asian. The age group consisted of either children or adults, of both genders. Half of the males were wearing baseball caps or hats while the other half were bareheaded and for women, half were wearing skirts or dresses and the other half wore slacks. The pictures were equally divided among each of the social categories. For example, there were six males and six females. Finally, the pictures were pasted onto blue construction paper.

The concept questions were asked at the end of the free sorting task. These questions were selected from a pre-study in which six college students were asked to rate nine questions, three in each concept category, as to whether the questions stereotypically represented members of race, gender, and age categories. They were rated on a scale of one to five, with one representing as "strongly agree" and five representing "strongly disagree". Questions with scores 1.5 and lower were chosen.

Procedure

Each participant was tested individually. A set of standardized directions and questions were used during the study. First, each child was shown all twelve pictures randomly, and then the child was given the pictures one by one with directions to "put the ones that are alike together in a pile." The children were not primed to categorize the pictures into certain groups during the testing session. When the children completed the sorting, they were asked why they had sorted the pictures the way they did. If they did not answer the question, they were asked more questions to probe for an answer. After questioning was completed, the pictures were shuffled and the child was asked to sort the pictures again in a different way. The sorting and questioning was done a total of three times.

After the sorting task was completed, the children were asked the concept questions to determine if they had a concept of race, gender, or age. These questions were always asked in the order of gender, age, and race.

Results

Three criteria were used to evaluate children's sortings into social categories. For each sort (1) at least two piles had to be made, (2) no more than two errors within each category sort, and (3) no more than six piles could be made. The last criterion was necessary to accommodate responses of children who combined two categories, such as age and gender, within the same sort. Each sorting was coded as to whether items were sorted by race, gender, or age. When children sorted two categories with the same sort, they received credit for both. If a sort did not meet the criteria, it was coded as "no sort." Clothing was not a category because the children did not sort according to the clothing category that was established.

Chi-square analyses were conducted to evaluate age differences in children's ability to sort by race, gender, and age. There were no significant differences. First, the majority of both age groups sorted the pictures according to race (see Table 1). About half of both the six- and seven-year-olds sorted the pictures into gender categories. Finally, although only about a third of the six-year-olds sorted an age category whereas two-thirds of the seven-year-olds sorted by age, the differences were not significant.

Chi-square analyses were calculated to see if there were age differences in children's ability to sort by concepts. There were significant differences only for the race concept and age concept: $\chi 2$ (1, 39) = 3.89, $p < .05$ and $\chi 2$ (1, 39) = 4.36, $p < .04$ respectively. Slightly less than half of the six-year-olds sorted by the concept of race, whereas three-fourths of the seven-year-olds sorted by the concept. Two-thirds of the six-year-olds and three-fourths of the seven-year-olds sorted by concept of gender. For the age concept, almost all of the six-year-olds and all of the seven-year-olds sorted by concept. Although most children did not sort the pictures into gender and age categories, most of them sorted by concept when asked to do so.

A separate analysis was conducted between race category and race concept to determine whether children's ability to sort by race was related to their having a concept of race. A 2 (Race Sort) x 2 (Race Concept) x 2 (Age) chi-square analysis was conducted and no significant age differences were found (see Table 2). Of the six-year-olds who were able to sort by race (n=17), slightly less than half also sorted by the race concept. Of the seven-year-olds who sorted by race (n=15), three-fourths sorted by race concept.

A 2 (Gender Sort) x 2 (Gender Concept) x 2 (Age) chi-square analysis was conducted to determine whether children's ability to sort by gender was related to their having a concept of gender (see Table 3). No significant age differences were found. About three-fourths of the six-

and seven-year-olds who sorted by gender category also sorted by gender concept indicating they had a formed concept of gender.

To determine whether the children's ability to sort by age was related to their ability to sort by concept of age, a 2 (Age Sort) x 2 (Age Concept) x 2 (Age) chi-square analysis was conducted (see Table 4). There were no significant age differences. Almost all of the six-year-olds and all of the seven-year-olds had sorted by age concept, whether or not they had originally sorted by the age social category.

Social categories were coded as to whether they were obtained in the first, second, or third sort. A point of interest was whether one category reliably would be sorted first before the other categories. It was found that many of both the six-year-olds and the seven-year-olds categorized the pictures by race first (see Table 5). Most frequently, gender and age were not sorted at all. If the children did sort these categories, gender was generally sorted second among the six-year-olds and third for seven-year-olds. Age was generally sorted first for the six- and seven-year-olds, but race was more frequently sorted first than age.

Children's open-ended answers to the question "Why did you put these people together?" or "How are these people alike?" were coded as "1" if the child labeled the category with an appropriate label and "0" if they did not. This question was included to determine if the children were able to verbalize the names of the category they sorted. The analyses included only those children who sorted the pictures into that category. Of the children who sorted the pictures into the three categories, race, gender, and age, there were significant differences for each category. For racial categories, a large proportion of both six- and seven-year-olds (13/17 and 4/5 respectively) were able to articulate a label and responding was significantly different from chance: $\chi 2(1, 17)=4.77$, $p< .03$ and $\chi 2(1, 15)=5.40$, $p< .02$ respectively. For gender, 8/9 six-

year-olds and 9/10 seven-year-olds provided appropriate labels for the categories they had sorted and the chi-square analyses were significant indicating that their responses differed from chance responding: $\chi 2(1, 9)=5.44$, $p < .03$ and $\chi 2(1, 10)=6.40$, $p < .01$ respectively. The proportion of six-year-olds and seven-year-olds who labeled their age group were 6/7 and 10/13 respectively. For six-year-olds, the chi-square analysis was borderline significant, $\chi 2(1, 7)=3.57$, $p < .059$, and for the seven-year-olds it was significant: $\chi 2(1, 13)=3.77$, $p < .05$. The children were able to label their age categories above chance level.

Discussion

It was hypothesized that because children around the age of six are developing concepts of race and because these concepts might have begun to function in everyday activities, children in this study would place importance on race when categorizing people. However, it was expected that the children would categorize people according to gender first. Gender is the first social category learned, and therefore, gender would be well-elaborated concept (Hetherington & Parke, 1999). Because children had learned to understand gender very early in life and because gender is central to their everyday lives (Semaj, 1981), it was expected that gender would be most salient and the children would be more likely to think of gender first. The results contradict the hypothesis.

Results showed that most children were likely to categorize the pictures according to race. Race appeared to be most salient to the children because, not only was race the most frequent categorization, it was also their first categorization. Furthermore, many of the children sorted the pictures by race more than once, even though they were asked to "Find another way in which the people are alike." In fact, many children did not sort into either of the other social categories available, gender and age.

The most unexpected result was that gender had the lowest frequency of being categorized. Semaj (1981) had asserted that between the ages of four and eleven children are gender-centered. It was believed that children would categorize first by their well-established concepts of gender and age, and only then would they sort by race. Instead for their secondary sorts, the children sorted by irrelevant features of the pictures. Taken together, these results indicate that for both six- and seven-year-olds, race was a salient social category.

There are some speculations on why the children sorted into racial categories first. It has been argued that between the ages of four and seven, children are in a transition stage during which they discover racial categories (Hirschfeld, 1993, 1994a, 1994b; Ovadia, 1993, as cited in Bar-Tal, 1996). Because race is a new category that these six-year-old children are just learning, they might be more likely to use that "new" category than the old ones. In support of this interpretation, color was especially salient to these children. During the testing, it was observed that when children did not sort by the social categories, they tended to categorize the pictures according to the color of some feature in the picture, for example, color of clothing worn, or hair. Skin is another factor which could be separated according to color. Because children recognized color frequently, that may have played a role in their decisions on how to separate the people who were alike. A third possibility of the high salience of race might be that the children tested were from a predominately Caucasian, suburban neighborhood. There were few families of a different race in the children's communities. Seeing persons of a different race might have made an impact on these children, and they chose to sort by race, the unusual characteristic.

Another issue under investigation was whether the children have a cognitive concept to support their categorizations. Over the course of childhood, children acquire numerous social group concepts depending on how they are exposed to the members of the social group (Bar-Tal,

1996). Concepts develop from home life, television, or school. In the acquisition of the concept of race, the children appeared to be in a transitional phase, with the six-year-olds in the early stages of forming a concept of race. The six-year-olds could see the physical features of the people in the picture but over half were unable to sort into racial groups when asked to put the family members together, indicating that they might not have an elaborated concept for race. When they did sort according to race, they defined the people as "They have white skin and they have brown/black skin." For the seven-year-olds, the majority sorted into racial categories, and sorted by race when asked to put the families together, indicating that they might have a more elaborated racial concept.

It is interesting that the children did not know what to do with the East Asians. Some children placed the East Asians with the Caucasian people, and others placed them with the African-American people but very rarely did the children place the East Asians in a group of their own. These findings indicate that these children might define people as being in one of two categories, black or white, and others were made to fit into that dichotomy. Their racial concepts are not elaborated enough to include more than two races.

As for gender and age, more children could sort accurately for the concept question than freely sorted into either category. For example, in the category of age, almost 100 percent of the children were able to answer the concept question, "Who can drive?" correctly, even though many did not freely sort the pictures by age as a social category. These results coincide with Edward's (1984) study which found that children as young as two years of age begin to acquire concepts about age. It is not surprising, then, that the six- and seven-year-olds in the current study could answer the common knowledge question, indicating all participants understood the concept of age. When the children did sort according to age, they called the adult group "big

people" or "mommies and daddies" while they termed the children as "little" or "kids." At times they combined gender and age in their sort and explained their sort as "These are the mommies and these are the daddies. Those are the kids." The children had separated adults according to gender.

Race followed the opposite pattern. More children sorted by race than could answer the concept question. This might be because they are in a transitional phase, in which they use perceptual features to organize information to establish the concept (Hirschfeld, 1994). Consistent with this interpretation, another factor the children could and did use to sort was hair color, which corresponded with the race of the person. All of the East Asians and African-Americans had black hair and the Caucasians had blond hair. The only person who differed was the Caucasian man who wore a hat. At times the children were doubtful of his hair color; however, they most often placed him with the other Caucasians. This act indicated that even though there was doubt about the dimension they said they were using, the children placed him according to his race group.

It is important to point out that for gender, the results might not represent an accurate picture of the children's understanding of the concept. When asked the question "Who can wear pink?" many of the children examined the pictures to see if any of the people were wearing pink and then based their groupings on that information. Other children pointed out that anyone could wear pink. As one girl stated, "My daddy wears a pink shirt, so all the daddies can wear pink." It appears that the gender stereotype may be changing and no longer includes "Only females wear pink." Due to the weakness of the question, the results for the concept of gender were not entirely reliable.

It is important to note that it is unclear how children of different racial groups would perform on the same sorting task. Because the children used in the study were predominately Caucasian, the results cannot be generalized to other children in America. It also should be noted that the other studies that researched children's understandings of race, such as Hirschfeld (1993, 1994a, & 1994b), and Ovadia (1993, as cited in Bar-Tal, 1996), were conducted in other countries where different racial groups occur. However, the present study is consistent with the findings in those studies. It can be said that between the ages of five and six, children are in a transitional period. This study demonstrates that children are developing a concept of race and are able to place people in their racial category.

As children continue making racial distinctions and develop their racial concepts, they will be more inclined to use the concepts in everyday life. It would be interesting to investigate how their concepts function. Also, it would be interesting to study whether children in the transitional phase identify particular characteristics with each race, or just identify them according to skin color.

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Table 1

Percentage of Children Sorting by Social Category and by Concept as a Function of Age

	Six-year-olds		Seven-year-olds	
Sort	Yes	No	Yes	No
Social Category				
Race	85	15	79	21
Gender	45	55	53	47
Age	35	65	68	32
Concept				
Race	42	58	74	26
Gender	65	35	74	26
Age	95	5	100	0

Table 2

Percentages of Children Sorting into Race Category and by Race Concept as a Function of Age

	Race Concept			
	Six-year-olds		Seven-year-olds	
Race Category	Yes	No	Yes	No
Yes	47	53	73	27
No	33	67	75	25

Note. 17 six-year-olds sorted a race category whereas 3 did not.

15 seven-year olds sorted a race category whereas 4 did not.

Table 3

Percentages of Children Sorting into Gender Category and by Gender Concept as a Function of Age

	Gender Concept			
	Six-year-olds		Seven-year-olds	
Gender Category	Yes	No	Yes	No
Yes	78	22	70	30
No	55	45	78	22

Note. 9 six-year-olds sorted a gender category whereas 11 did not.

10 seven-year olds sorted a gender category whereas 9 did not.

Table 4

Percentages of Children Sorting into Age Category and by Age Concept as a Function of Age

	Age Concept			
	Six-year-olds		Seven-year-olds	
Age Category	Yes	No	Yes	No
Yes	86	14	100	0
No	100	0	100	0

Note. 7 six-year-olds sorted an age category whereas 13 did not.

13 seven-year-olds sorted an age category whereas 6 did not.

Table 5

Percentages of Children Sorting into Social Categories by Rank as a Function of Age

	Six-year-olds			Seven-year-olds		
Rank	Race	Gender	Age	Race	Gender	Age
First	70	5	20	47	16	33
Second	10	30	15	32	11	15
Third	5	10	0	0	26	3
No Rank	15	55	65	21	47	49